



Water Quality Technical Forum Report

Chlorine Residual and Coliform Data

There were no positive coliform samples in purveyor areas during December 2005. Average chlorine residual concentrations in the purveyor distribution systems ranged from 0.2 to 1.2 mg/L, with an overall average of 0.83 mg/L. The target chlorine residual at the Tolt Treatment facility is 1.5 mg/L and the Cedar target residual is 1.4 mg/L. Year 2005 ended with only four positive coliform samples for the purveyors, out of 7056 total samples collected.

Taste and Odor

The taste and odor panel is meeting every other week. Samples are rated on a scale from 1 to 9, with 1 representing the best and 9 representing the worst. The taste and odor flavor rating assessment (FRA) for the Cedar supply (Lake Youngs treated) samples in December were 1.6 and 1.7. The two Tolt supply results were 1.2 and 1.4 with a slight chlorinous taste. If you would like to receive a weekly update of the taste and odor panel results, please e-mail Moya Joubert at moya.joubert@seattle.gov.

Lead and Copper

SPU will be meeting with DOH in February to discuss next steps for lead and copper monitoring. Topics for discussion include timing for the next sampling round, reduced water quality parameter monitoring, and reduced lead and copper monitoring. At this time, it looks like the next sampling round will be June to September 2006.

SPU Contact: Wylie Harper, 206 684-7880 or Lynn Kirby, 206 684-0216.

Consumer Confidence Reports

SPU will be providing the data for the consumer confidence reports sometime in February 2006. As always, these reports must be mailed to customers by July 1st of each year.

SPU Contact: Wylie Harper, 206 684-7880 or Lynn Kirby, 206 684-0216.



Conservation Technical Forum

On the web at <http://www.savingwater.org>

CONSERVATION TECHNICAL FORUM Irrigation Training Opportunities

In partnership with the Washington Irrigation Contractors Association (WICA), the Seattle Water Partnership (SWP) is co-sponsoring a series of irrigation trainings related to water conservation. Scheduled during the second week of February, the trainings will include a class on drip irrigation, site water management planning, and irrigation scheduling. The irrigation scheduling class incorporates the new www.iwms.org on-line irrigation tools, including the Watering Index, soon to be promoted daily by

KOMO TV weather updates. Special discounts to attend the trainings are available to public sector landscape staff who work in SWP service areas.

- Drip Design in the Landscape, Feb. 6th, 8:00 AM –4:00 PM. Learn how to professionally design drip irrigation systems.
- Site Water Management Planning, Feb. 7th, 8:00 AM –4:00 PM. Learn how to develop efficient water management plans for commercial and residential sites.
- Irrigation Scheduling with Online Tools, Feb. 8th, 1:00 PM –5:00 PM. Combine detailed irrigation skills with powerful internet scheduling calculators to create accurate weather based watering schedules for any controller!

All classes and meetings will be held at the Issaquah Holiday Inn, 1801 12th Ave., Issaquah, WA. Registration deadline is February 1st, 2006.

Contact WICA for more information:
(206) 240-4583 or info@wica-web.org.

Or visit: www.wica-web.org

CONTACT: Jenna Smith, (206) 684-5955

Natural Drainage Overview

Increasing awareness of the negative impacts human activities have on creeks, lakes and wetlands have driven significant change in the way urban cities manage their stormwater.

Better stewardship of Seattle's creeks and watersheds

In Seattle, creeks are fragile ecosystems, home to a few determined but diminishing species of salmon. Public demand for increased environmental stewardship led the City of Seattle to actively promote restoration of creek habitat in the late 1990's through the Urban Creeks Legacy program. However, restoring stream habitat alone is clearly not enough.

The nature of the problem

"Impervious" surfaces such as rooftops, streets, and parking lots do not allow rainwater to seep

into the soil. Instead, the water is carried away in pipes and ditches, flowing quickly and in great volumes to Seattle's creeks. Pollution from our daily activities, such as landscaping, transportation, and business, is carried by this runoff into creeks and then into lakes and Puget Sound, impacting the food chain that supports fish and other wildlife. This fast-flowing stormwater erodes stream channels, destroying the habitat that wildlife needs to develop and thrive.

The sheer volume, rate of flow, and transport of non-point pollution (pollution that can't be traced to one specific source) into our creeks has compelled Seattle to look for solutions throughout the urban watershed, far beyond the stream channel itself.

A new solution

As we have become more aware of the damage that runoff can cause, SPU has begun exploring new approaches to managing stormwater. These natural drainage systems meet multiple goals and have a few things in common:

- They help to manage flooding in neighborhoods.
- They improve the appearance and function of the street right-of-way.
- They provide responsible stewardship of the environment.
- They help the City meet local, state and national environmental regulations.

One Seattle Public Utilities Natural Drainage Systems (NDS) project is located in northwest Seattle. This prototype project, the first NDS project in Seattle, shows a range of unique drainage and street design innovations. A brief description on the project follows. To learn more about the SEA Street natural drainage project, please visit

<http://www2.cityofseattle.net/util/tours/seastreet/slide1.htm> .

The SEA Street Project

Before it was transformed into SEA Street, this stretch of 2nd Avenue NW was covered in pavement and compacted gravel. When water flows over these hard surfaces, it picks up pollution and speed, often causing damage to creeks and lakes. The project designers have applied a Natural Drainage Systems (NDS) approach to managing the stormwater from the neighborhood. The NDS approach mimics nature by increasing the ability of the landscape to absorb rainwater with shallow depressions, amended soils, and plants - improving water quality and quantity, and reducing pollution and runoff speed.

The drainage goals for this project include conveyance, flood control, and minimizing the flow of stormwater off-site. The project team sculpted the project area to move water away from the roadway and homes and into planted swales along both sides of the road.

By retrofitting the street using an NDS approach, the project team supported the transportation needs of the neighborhood while simultaneously

providing space for rainwater to return to the earth, rather than flowing rapidly across the paved landscape toward Pipers Creek.

Many people visit SEA Street each year. They range from watershed residents taking a stroll, to university students, to engineers, designers and other professionals.

In order to measure the drainage and water quality results of the project, monitoring equipment has been placed at the downstream (south) end of the project. Data collected with these instruments are used in an ongoing study being conducted by SPU and the University of Washington. The first three years of project monitoring has shown that 98% of wet-season and 100% of dry-season stormwater runoff has been eliminated by the project. For additional results, please see the links to Hydrologic Monitoring on the SEA Street main page.

SEA Street was the first project of its kind. It serves as a benchmark for continual learning. The design for SEA Street has helped inspire and inform subsequent Natural Drainage System designs in Seattle and in other cities.